Check List 9(5): 1084–1086, 2013
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ISSN 1809-127X (available at *www.checklist.org.br*)

Check List
Journal of species lists and distribution

NOTES ON GEOGRAPHIC DISTRIBUTION

New records on endangered and endemic species of *Stigmaphyllon* A. Juss. (Malpighiaceae) in Brazil

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ABSTRACT: New records on three endangered and endemic species of *Stigmaphyllon* are presented: *S. angustilobum* extend its distribution in the State of Espírito Santo, *S. crenatum* extend its distribution in the State of Minas Gerais and *S. macedoanum* occurs also in the State of Mato Grosso do Sul.

Stigmaphyllon A. Juss. is one of the wing-fruited genera of neotropical Malpighiaceae. Most species are woody vines with long-petioled, elliptical to cordate leaves and clusters of yellow, bilaterally symmetrical flowers arranged in compound inflorescences. The fruit is a schizocarp that splits into three samaras with a large dorsal wing. The genus is named for the lateral appendages, the folioles, borne on the styles of most species (Anderson 1997).

The genus is pantropical, occurring in Africa, Southeastern Asia, Australasia, and in the West Indies and from southern Mexico to northern Argentina within the Neotropics (Anderson 2011). In Brazil it's represented by 46 species widely distributed though all biomes, which 31 are endemics (Mamede *et al.* 2012) and nine are currently threatened (INCT 2012).

During field expeditions and visits to Brazilian herbaria for the elaboration of Malpighiaceae checklists from Mato Grosso do Sul and Espírito Santo States we found new records of three threatened and endemic species of *Stigmaphyllon* in Brazilian hotspots for conservation priorities (Mittermeier *et al.* 2005). We present new data on the distribution of the endangered species *S. crenatum* and *S. macedoanum* in Brazil, and the endemic *S. angustilobum*, extending their range of distribution in the country. Maps were elaborated using ArcGIS software (ESRI 2010) and shape files obtained from Ministério do Meio Ambiente (2013).

Stigmaphyllon angustilobum A. Juss., Fl.bras. mer. 3: 53. 1833. ["1832"].

It is easily recognized by its palmately 3-5-lobed leaves, tomentose abaxially and the stamens opposite to the posterior-lateral sepals reduced to staminodes.

This species is endemic to the Montane Atlantic Forest within the States of Espírito Santo, Minas Gerais, Rio de Janeiro and São Paulo. It was first described to Serra do Mar region in São Paulo State and it was posteriorly collected throughout Serra do Mar and Mantiqueira in the States of Minas Gerais and Rio de Janeiro. In Espírito Santo occurs in rocky outcrops surrounded by semideciduous forests within the northern portion of Serra da Mantiqueira inside limits of Caparaó National Park (Figures 1a-b; 2; 3).

Specimens examined: **BRASIL. Espírito Santo:** Divino de São Lourenço, Parque Nacional do Caparaó, Base Santa Marta, Inselberg ao lado da Casa dos Pesquisadores, 17-X-/2011, fl., R.F. Almeida *et al.* 503 (SP).

Specimens previously cited in literature: **BRAZIL. Minas Gerais:** Descoberto, Reserva Biológica da Represa do Grama, 14-I-2001, R.C. Forzza 1887 (SP). Juiz de Fora, Fazenda do Sertão, rodovia Coronel Pacheco, 13-X-1945, E.P. Heringer 2090 (SP). Vila Rica, F. Sellow s/n (NY 476301). **Rio de Janeiro:** Itatiaia, Maromba, 25-XII-1928, P.C. Porto 1854 (RB); 30-V-1969, D. Sucre 5165 (RB); Monte Serrat, 24-V-1935, A.C. Brade 14611 (RB); Parque Nacional do Itatiaia, 15-V-1947, A. Ducke 1185 (SP); Lote 17, 11-V-1943, J.J. Sampaio s/n (RB 445759). Mauá, km 5, 26-VI-1936, L. Lanstyak 119 (RB). Petrópolis, s.d., A.F.M. Glaziou 10360 (R); VI-1943, O.C. Góes 614 (RB); Distr. Nogueira, 10-V-1979, L. Mautone 139 (RB). Resende, Faz. da Barra, 23-VI-1927, J.G. Kuhlmann s/n (RB 26353). Rio de Janeiro, s.d., A.F.M. Glaziou 8463 (NY). Vale do Bonsucesso, estrada do Contorno, Rio-Petrópolis, 02-XI-1970, L. Krieger 9624 (SP). Valença, Estrada de acesso ao topo do morro, 05-VI-1999, A.M. Amorim 3076 (CEPEC). **São Paulo:** Bananal, s.d., A. Saint-Hilaire s/n (P 64900). Queluz, margem do rio das Cruzes, 23-V-1996, R. Goldenberg 169 (SP). São Antônio do Pinhal, na estrada para Campos do Jordão, 29-VIII-1994, C. Müller 31988 (SP). São José do Barreiro, 30-IV-1926, F.C. Hoehne 17660 (NY); Base da Reserva do Parque Nacional da Serra da Bocaína, V-1997, R. Simão-Bianchini 1074 (UEC). São José dos Campos, Reserva Florestal da Boa Vista, IV-1995, A.E. Silva 1239 (UEC). São Paulo, Parque do Estado, 05-III-1945, F.C. Hoehne s/n (SP 269604).

Stigmaphyllon crenatum C.E.Anderson, Contr. Univ. Michigan Herb. 19: 419. 1993.

It is easily recognized by its shrub habit, sessile and suborbicular leaves with crenate margins.

This species is endangered, occurring in the Atlantic Forest within the States of Espírito Santo and Minas Gerais. It was first described to rocky outcrops of Espírito Santo State and was regarded as endemic to this state. In Minas Gerais occurs in fragments of semideciduous forests

associated to rocky outcrops (Figures 1c-d; 2; 3).

Specimens examined: **BRASIL. Minas Gerais:** Caraí, afloramento rochoso, 6-VII-2009, fl. fr., Kollmann & Leme 11761 (MBML). Itabirinha de Mantena, beira da estrada para Córrego Azul, 2-VII-2009, fl., Kollmann *et al.* 11693 (MBML, SP).

Specimens previously cited in literature: **BRAZIL. Espírito Santo:** Águia Branca, Rochedo, X-2006, L.F.S. Magnano 1612 (MBML). Colatina, Rio Paucal, 8-XII-1943, J.G. Kyhlmann 6651 (RB). Marilândia, Liberdade (Água Viva, Pedra do Cruzeiro), 18-XI-2006, V. Demuner 1638 (MBML). Nova Venécia, 15-XI-1953, A.P. Duarte 4000 (RB). Rio Pancas, Aldeiamento dos Índios, 11-VII-1942, E. Bueno 156 (R). Vila Pavão, Inselbergue, 19-XI-2009, E.S. Leal (RB).

Stigmaphyllon maceadoanum C.E.Anderson, Contr. Univ. Michigan Herb. 17: 10. 1990.

It is easily recognized by its 3-5 lobed leaves, with

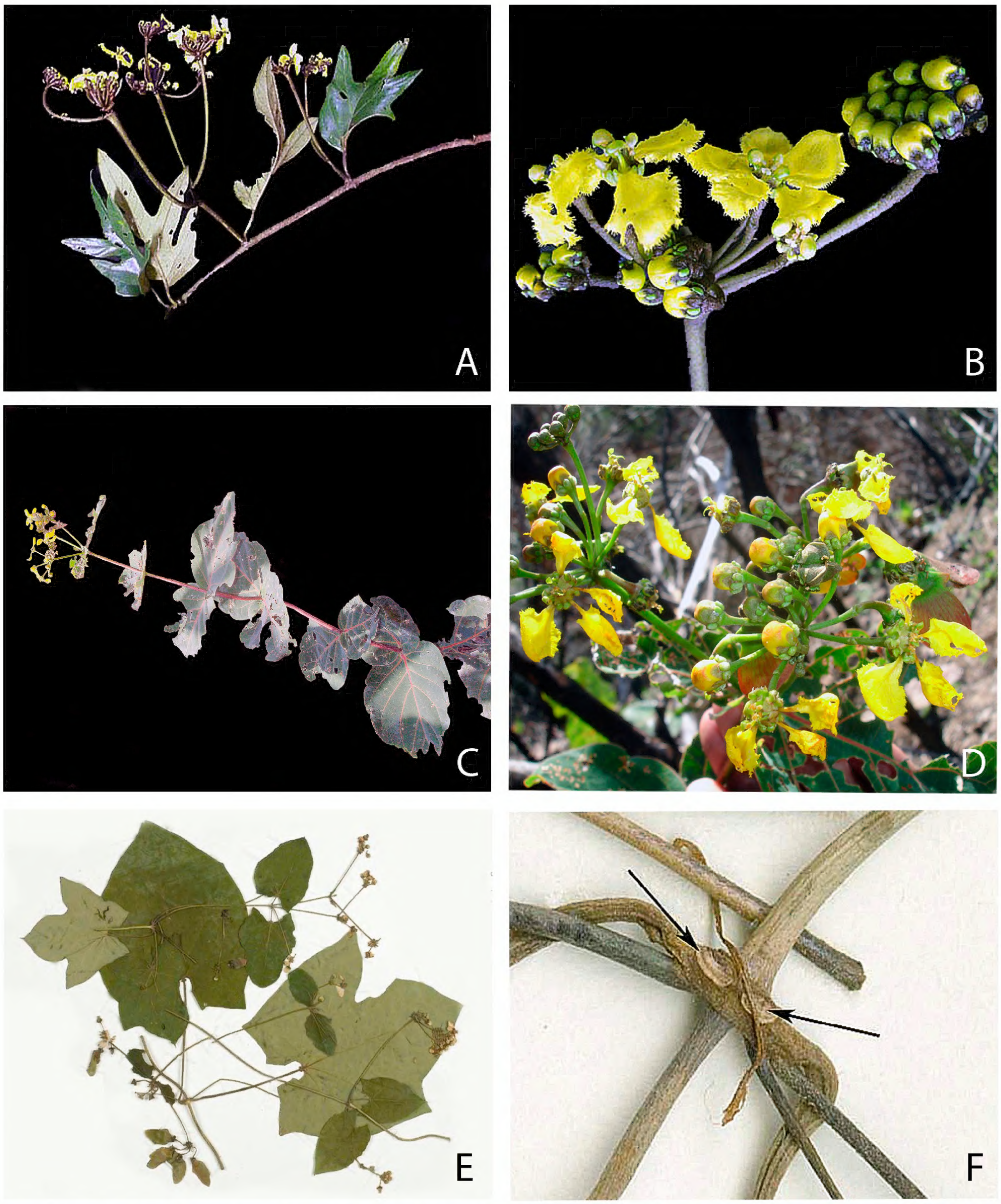

FIGURE 1. Images of the analyzed species: *Stigmaphyllon angustilobum* (photo by R.F.Almeida) A. Habit, B. Inflorescence; *Stigmaphyllon crenatum* (photo by L.Kollmann) C. Habit, D. Inflorescence; *Stigmaphyllon macedoanum* (image from collection F 73501) E. Habit, F. Prominent foliar node.

filiform glands on the margin of the lamina and petioles confluent across the node forming a corky ridge.

This species is endangered, occurring in the Cerrado vegetation (Brazilian savanna) of Goiás State and Pantanal wetlands of Mato Grosso do Sul State. It was first described to semideciduous forests of Cerrado, southwestern Minas Gerais. Within Mato Grosso do Sul, it occurs in semideciduous forests of the Pantanal region (Figures 1e-f; 2; 3).

Specimens examined: **BRAZIL. Mato Grosso do Sul:** Corumbá, Fazenda Primavera (Ruivaldo Albaneze), Jacadigo, 3-V-1990, fl., A. Pott *et al.* 5716 (CPAP, SP); Morro da Bocaina, 29-V-2008, fl., R. Sebastiani *et al*. 323 (SP).

Specimens previously cited in literature: **BRAZIL. Minas Gerais:** Capinópolis, Fazenda Santa Terezinha, as margens do Rio Paranaíba, 27-I-1989, A. Macedo 5486 (B, G, K, MICH, NY, R, UB, US). Ituiutaba, s.d., A. Macedo 5057 (MBM).

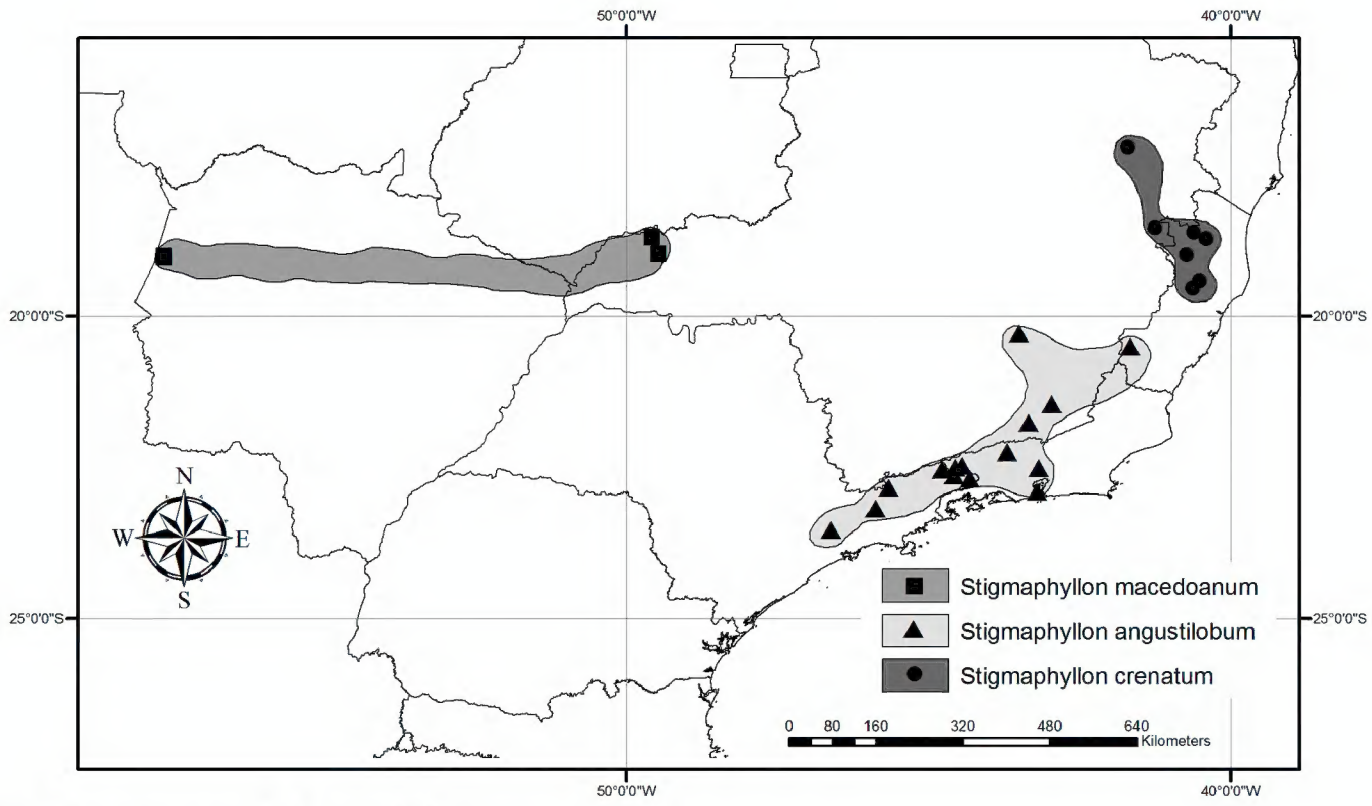

FIGURE 2. Distribution map of three species of *Stigmaphyllon*.

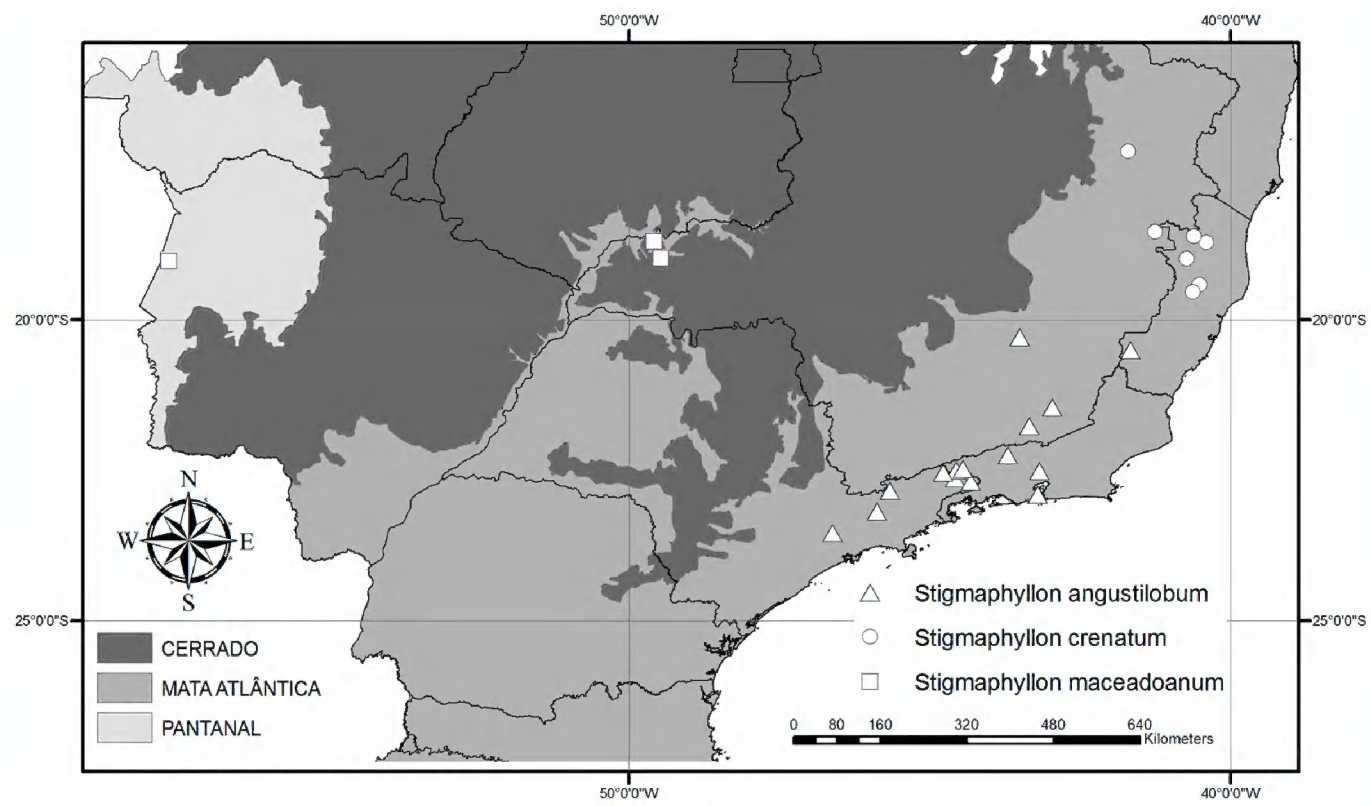

FIGURE 3. Distribution map of three species of *Stigmaphyllon* and their respective biomes.

ACKNOWLEDGMENTS: We thank the curators of the visited herbaria and Embrapa Corumbá (CPAP-MS) for the support during the field collection of *S. macedoanum.*

LITERATURE CITED

Anderson, C. 1997. Monograph of *Stigmaphyllon* (Malpighiaceae). *Systematic Botany Monographs* 51: 1-313.

Anderson, C. 2011. Revision of *Ryssopterys* and transfer to *Stigmaphyllon* (Malpighiaceae). *Blumea* 56: 73-104.

Environmental Systems Research Institute, Inc. 2010. *ArcGIS, version 9.3.1*. Environmental Systems Research Institute, Inc. (United States of America).

Institutos Nacionais de Ciência e Tecnologia (INCT). 2012. *Lacunas de conhecimento da flora e dos fungos do Brasil-Virtual Herbarium*. Accessible at http://lacunas.inct.florabrasil.net/2013/index, Captured on 10 January 2013.

Mamede, M.C.H., A.M.A. Amorim and R. Sebastiani. 2012. Malpighiaceae. *In* R.C. Forzza, J.F.A. Baumgratz, C.E.M. Bicudo, A.A. Carvalho Jr., A. Costa, D.P. Costa, M. Hopkins, P.M. Leitman, L.G. Lohmann, L.C. Maia, G. Martinelli, M. Menezes, M.P. Morim, M.A.N. Coelho, A.L. Peixoto, J.R. Pirani, J. Prado, L.P.Queiroz, V.C. Souza, J.R. Stehmann, L.S. Sylvestre, B.M.T. Walter and D. Zappi (ed.). *Lista de Espécies da Flora do Brasil.* Jardim Botânico do Rio de Janeiro. Electronic Database accessible at http://floradobrasil.jbrj.gov.br/2012/index. Captured on 07 December 2012.

Ministério do Meio Ambiente. 2013. *Mapas de cobertura vegetal dos biomas brasileiros*. Accessible at http://mapas.mma.gov.br/mapas/aplic/probio/datadownload.htm. Captured on 4 June 2013.

Mittermeier, R.A., P.R. Gil, M. Hoffman, J.D. Pilgrim, T.M. Brooks, C.G. Mittermeier and G.A.B. Fonseca 2005. *Hotspots revisited: earth's biologically richest and most endangered terrestrial ecoregions.* Mexico City: CEMEX. 392 p.

RECEIVED: January 2013
ACCEPTED: September 2013
PUBLISHED ONLINE: October 2013
EDITORIAL RESPONSIBILITY: Pedro V. Eisenlohr